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# **East Europe Report**

**ECONOMIC AND INDUSTRIAL AFFAIRS**

**No. 2000**



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CEMA COUNTRIES JOINT ENTERPRISES EVALUATED

Bratislava NEDELNA PRAVDA in Slovak 29 Feb 80 pp 4-5

[Article by Vratislav Valek: "Joint Enterprises of CEMA Member States"]

[Text] Cooperation among socialist countries is on the rise. New forms of collaboration are being discovered and solutions are being found to more easily obtain urgently needed raw materials and supplies. This problem was extensively covered in an article published in the periodical MEZINRODNI POLITIKA (Prague 1979) from which we are publishing the most important parts.

The development of socialist economic integration in CEMA consistent with the goals and tasks designated by the Comprehensive Program has taken various forms and utilizes many means and instruments. The establishment of joint enterprises is gradually becoming one of the modern forms of direct productive cooperation among the CEMA member states. These enterprises are formed on the basis of member investments.

They handle allocated property and act as corporations in their own names on the basis of complete economic self-efficiency. They are, therefore, jointly managed organizations whose business is economic activity in specified fields determined in advance. The existence of the joint enterprises at the same time gives the participating parties a claim to obtaining a share of the profits or some other form of appreciation of the invested production resources.

The sphere of activity of joint enterprises in the CEMA framework is diverse. From a material and economic viewpoint they contribute to a more intensive development of cooperation and specialization of production, particularly in the engineering, chemical and electrochemical industries, in the area of services, etc. At the same time they facilitate the increase of mass production and serial manufacture on the basis of optimal concentration of production. Joint enterprises have a great influence on the overall efficiency of domestic and foreign markets and on the efficient utilization of the results of scientific research. These enterprises also provide definite opportunities for the extraction and preliminary processing of raw

materials which is very important particularly for those CEMA member countries which do not have sufficient supplies of raw materials and fuel. As indicated by practical observations and experiences up to now, in essence the interests and incentives of CEMA member states are important in selecting criteria of efficiency and determining the economic region in which a joint enterprise is to be established.

In connection with the preparation of long-term goals of programs of co-operation in selected branches of socialist economy (fuel, energy, engineering, transportation and the like) the position of the joint enterprise must be defined also in another very broad form of joint investment--in specific long-term investment credits. The peculiarity of this type of joint enterprising of interested states is due to the fact that relations between those providing the credit (the creditors) and the users of the credit (the debtors) are not based on property rights. The creditor can claim full reimbursement for the financial, material and intangible resources he provided only within the time period and form which the pertinent agreement authorizes. In most cases this assures the creditor long-term and stable deliveries of basic raw materials, supplies, fuel and the like which would be very difficult to obtain through routine imports. So what it comes down to is a form of investment participation which makes it possible to carry out huge capital investment operations which the individual socialist countries would find it extremely difficult to mount.

The critical factor in establishing a joint enterprise is the guarantee of sustained utilization of the investments made and obtaining the product involved in suitable quantities. The joint enterprise also sets up conditions for higher efficiency of the investment process because the investment resources, based on optimal combinations, can be placed in the most advantageous locals with respect to raw materials, fuels, manpower or efficient markets. In addition, it must be remembered that joint enterprises can provide a substantially greater concentration of production than the usual national production capacity in which there are often limits to mobilizing the necessary material and financial resources.

The joint enterprise of CEMA countries represents a new qualitative element of socialist productive relations which is developing on the basis of internationalization (integration) of productive forces. Therefore, we cannot regard it as a mechanical transformation of national enterprises but rather as a new form of socialist economy.

Developments up to now also indicate that joint enterprises are in a phase of preliminary testing and study so far which, after all, can also be said of other international economic organizations under CEMA.

At the present time six joint enterprises are developing operations within the framework of CEMA of which four evolved after adoption of the Comprehensive Program. Five of these are bilateral and one is multilateral. The oldest joint enterprise of CEMA member countries is the Haldex stock company.

## Haldex

The PLR [Polish People's Republic] and the MLR [Hungarian People's Republic] established the Haldex company on the basis of an intergovernmental agreement on 16 April 1959 and its immediate production activity began 1 January 1960. From the legal standpoint this is an international stock company of two CEMA member countries which, however, is active exclusively on the territory of the PLR (headquarters in Katowice). The chief production of Haldex is the processing of waste from coal-mine dumps which would otherwise be reclaimed. The enterprise obtains from this waste in some cases 10-12 percent quality black coal and valuable raw material for building and ceramic industries while the residue of the waste is used for filling up old pit mines no longer in use.

In setting up Haldex the Hungarians provided the technology and appropriate equipment while the PLR provided the land, the building capacity, the waste for processing and the manpower. So far Haldex has processed a total of 57 million tons of coal-mine dumps. In the 1970-1980 decade a total of 3.1 million tons of black coal will have been produced from this waste.

During the first stage of Haldex operations five producing plants were gradually constructed in the Katowice industrial agglomeration (Bytom, Zabrze and Siemianowice). The oldest plant is "Michał," followed by "Szombierki," "Makoszowy," "Dimitrow" and the most modern plant of this stage, "Rokytnica." The enterprise employs over 1000 workers in these plants while management has about 120 workers.

In the second stage of enterprise operations, which culminated in the mid-70s, two more production plants were constructed. Here they already applied modern technological advances in processing the coal dump material (gas furnaces) which resulted in the procurement of highly desirable building and ceramic materials. At the present time all production capacities of the enterprise are being fully exploited (currently work is in three shifts) and in the economic sphere Haldex is reporting an earning capacity as planned.

The top managing body of the enterprise is the General Meeting of stockholders in which the PLR and MLR are equally represented. The chief executive body is the board of trustees which directs operations through the enterprise management. Control activity is carried out by a review board whose members are appointed by the PLR Ministry of Mining and Energy and the MLR Ministry of Heavy Industry.

Except for the first 2 years of its existence when Haldex showed a loss (in the years 1960-1961 when production was being broken in) it has continuously showed a profit whose absolute amount varies in individual years according to operational conditions (the quality of the coal-mine waste being processed, effects of weather conditions, etc). Before distribution of the profit among participating stockholders subsidies are first paid in favor of appropriate operational funds. Hungary takes its share of profits in black coal at prices which are more favorable than current world prices

of this fuel. Poland takes all the remaining products of Haldex and at the same time the ecological aspects of the operations are very important (liquidation of coal slag dumps which would otherwise blemish the appearance of the countryside).

The successful Hungarian technology for processing coal-mine dumps which has proved itself so positively in Haldex is also of interest at the present time to other countries, including the CSSR. Even now the Hungarian patent is being successfully applied in Great Britain, Belgium, Turkey and other countries.

The USSR, the United States, Spain and the CSSR have already sent Haldex samples of their coal-mine wastes for export analysis with a view to possible application of this modern technology.

#### Intransmas

The Bulgarian-Hungarian joint enterprise Intransmas has been in successful operation for 15 years now. It was activated on 1 April 1965 on the basis of an intergovernmental agreement between the MLR and the BLR [Bulgarian People's Republic]. Intransmas is oriented toward the research, development and designing of intra-enterprise systems of transportation and storage management which in our modern economy represent a significant area of industrial production, transportation and trade. From the enterprise viewpoint the following activities are involved:

--It functions as general supplier of mechanization and automation designs of intra-enterprise transportation; it sees to the manufacture of non-standard machines and equipment, parts and the like; it develops proposals for the coordination of scientific research and designing activities which are connected with problems of the hoisting and transportation technology; it develops model proposals for agencies of both countries for specialization and cooperation in production; it seeks out and suggests new and higher forms of cooperation between the two states; it provides engineering services in the area of intra-enterprise transportation and storage (economy, technology, organization, etc); it designs and divides machines and general equipment and specialized and made-to-order machinery.

Recently the operations of Intransmas have been very important particularly in processing efficient comprehensive projects for the storage economy of production enterprises, commercial organizations and the like. In this connection the activities of the Elprom enterprise in Lovec, the IFA plant in the GDR, etc, have been very successful.

The enterprise headquarters are in Sofia in the BLR; its affiliate operates in Budapest in the MLR. The existence and activity of Intransmas make it possible to associate individual parts of the production process in the area of intra-enterprise transportation and storage even though the enterprise itself in practice is occupied with design and development (actual production activity is negligible and is concentrated chiefly on the manufacture of prototypes, zero series and the like). The specific

character of this international joint enterprise is also evidence of the fact that the sphere of activity of joint enterprises of CEMA member states is extensive and versatile and need not always encompass only actual production operations.

Recently the activity of Intransmas has shown great dynamism especially in foreign trade. In the first 4 years of its existence the enterprise satisfied primarily the needs of both participating states and was not authorized to engage in foreign trade operations. Since the beginning of the 70s, however, there has been a basic change and the enterprise obtained this right. Whereas in 1973 the foreign operation portion of Intransmas was only about 15 percent of the total volume of services provided, in 1977 it had already reached over 60 percent. At the same time the enterprise is primarily oriented toward satisfying the needs of CEMA member states. Relations with other states, however, are also developing while Intransmas takes a very active part in many international trade fairs and expositions.

The relationship of Intransmas to the national budgets of the BLR and MLR was resolved in an interesting manner. Up to 1974 it was exempt from paying any assessments and taxes to these budgets. In connection with the amendment of pertinent basic Intransmas (statutes and agreements), there was a change in this area in 1974. The enterprise began to pay a 25-percent and since 1975 a 30-percent tax from its profits to the state budgets which was made possible because of its high efficiency. This provision did not affect the necessary allotments in favor of appropriate enterprise funds (development fund, awards fund).

The example of Intransmas thus shows that the organizational management and economic system in joint enterprises of CEMA member countries can be gradually formed as required by the dynamic development of its economic functions. Certain solutions are at the same time based on mutual agreements of the participating parties which are the result of incentives on both sides to the development of appropriate cooperation.

#### Druzba

The joint textile spinning mill of Polish-German friendship, Druzba, (Przyjazne-Freundschaft) in Zawiercie in the PLR was established on the basis of an intergovernmental agreement in 1972 and began its economic activity the beginning of May 1975. Thus this is the first joint enterprise which evolved on the basis of fulfillment of the Comprehensive Program. Its direct founders are associations of the cotton industry in Lodz and in Karl-Marx-Stadt of which each invested in a so-called statutory fund 37.5 million convertible rubles. The size of the enterprise is graphically illustrated by the fact that it is spread over an area of 50 hectares, employs approximately 2500 workers and took almost 33 months to build.

The GDR provided the technological equipment and technical specialists for this enterprise, the PLR the land, buildings and manpower. At the

head of Druzba is the main directorate in which the PLR and GDR are equally represented. In management the chief manager is of Polish nationality, the deputy manager is of German nationality and the chief economist is from the PLR. The enterprise gets its raw material--cotton--from the USSR while the sale of the produced cotton yarn is directed only to the PLR and GDR. The annual production represents 12,500 tons of cotton yarn. Delivery of the yarn is handled by the Polish foreign trade enterprise and the entire production is equally divided between the two states.

The enterprise profit remains totally in the enterprise and is used as allotments to operational and investment funds. At the same time the enterprise is exempt from sales and excise taxes while it is subject to the full extent of local taxes. In the area of wages regulations applicable to the Polish cotton industry are used as determined by the enterprise statutes which also govern other work-related questions.

#### Erdenet

The agreement for the establishment of Erdenet, the joint Soviet-Mongolian enterprise for the mining and processing of copper and molybdenum ores was signed 22 September 1973 in Ulan Bator in the MoLR [Mongolian People's Republic]. Its participants are the Ministry of the Fuel-Power Industry and Geology of the MoLR and the Ministry of Non-Ferrous Metallurgy in the Soviet Union. The actual production base of the enterprise is located on an extensive ore deposit near the city of Erdenetijn Ovoo and includes a combine for processing the extracted ores, the Salchit-Erdenetijn Ovoo railroad, apartment buildings, social facilities and auxiliary installations which are directly connected with the economic operations. The main tasks and functions of the Erdenet joint enterprise are: participation in the compilation of plans for capital construction and preparing and concluding contracts therefor, including mechanical equipment; the selection and utilization of finished production complexes; the fulfillment of production and financial plans in order to meet the requirements of both states for copper and molybdenum concentrates; assuring maximum efficiency in mining and processing the ores; the preparation of new technicians and workers for the production capacity; the preparation of proposals and recommendations for the development of other deposits of non-ferrous metals on the territory of the MoLR; making provisions for the protection of the environment in the area of ore mining and processing.

The managing body of the joint enterprise is a council with equal representation of both participants. The year 1976 saw the completion of practically all the important preparatory work within the framework of Erdenet connected with the future economic activity of this extensive combine which represents the largest investment undertaking of the Sixth Mongolian Five-Year Plan and ranks among the 10 largest combines in this area of the world. There is also extensive construction of housing and facilities for public use connected with the combine. The first part of the combine was completed in September 1978. In this connection it was necessary to construct long-distance electrical lines for this joint

enterprise (220 kilovolts) in order to connect with the system of long-distance lines in Eastern Siberia in the USSR. In 1976 they also started test operations of the railroad line which connects Erdenet with Salchit in Mongolia; a 64-km length of water pipeline for the use of the enterprise was completed as well as the construction of communications facilities (telephone, relay facilities for television, etc).

The construction of the Erdenet joint enterprise is a matter for all of Mongolia. Taking part in the construction are workers from all ends of the country who, together with Soviet experts, are forming an extensive international collective. Already living in Erdenet are over 25,000 inhabitants in new apartments and they also built schools, stores, restaurant facilities, clubs for young people, etc. This construction is continuously going on because a rapidly growing city needs quality services quickly.

In order to provide for the planned objectives a fund was set up which both parties participated in equal shares. This fund consists of convertible rubles and tugriks and its final amount will be determined after completion of all production facilities and deliveries of mechanical equipment. The share of the Soviet Union in the enterprise fund consists also to a certain extent in the amount of geological and designing work, deliveries of machinery and equipment and their installation on the basis of construction designs. The Mongolian share consists of the mining deposit itself, housing and social facilities, funds in tugriks to cover the costs of local building materials, transportation and the like, the value of important circulating enterprise funds in tugriks as well as convertible rubles which cover the difference between the USSR costs for building the enterprise and its share in the statutory fund.

The exportation of the production of the joint enterprise to the USSR and the importation of important products and equipment from the USSR are carried out through appropriate foreign trade organizations of the contractual countries within the framework of the Soviet-Mongolian trade agreement at prices set on the basis of applicable principles under CEMA.

Erdenet has a foreign exchange account at its disposal in the Mongolian National Bank in which funds are collected in foreign currency from the exports of production. These funds are for the most part designated for purchasing abroad essential equipment, technical documentation, materials and services through appropriate foreign trade organizations of the MoLR. The profit of the joint enterprise, except for that portion which will be designated for further development of economic activity (allotment funds) will be divided equally between the participating parties. The Soviet share of the profits will be converted to convertible ruble and will be used to purchase products of the joint enterprise. At the same time the principle will be observed that clear profit is not subject to any kind of taxation in Mongolia. Any losses may be subsidized from the reserve fund or from other funds on the basis of decisions of the managing body of Erdenet.

An inseparable component of the entire Erdenet project is also the building up of a material base for industrial production in the city of Erdenet which is of special importance to the whole Mongolian national economy. In this industrial agglomeration they are building a plant for the production of modern building materials (metal framework, reinforced concrete, transportation equipment, etc) and are establishing extensive capacities for storage management of industrial plants and for supplying the population, etc.

Within the framework of building Erdenet the training of technical cadres for actual economic operations is of great importance. For this purpose they built special technical training facilities directly in Erdenet which have already educated over 1000 workers. Over 250 more specialists are training in advanced schools in the USSR and another 150 in lower technical training facilities. Hundreds of workers are undergoing practical experience at the same time directly in production in Soviet metallurgical combines.

According to present developments it can realistically be stated that expenditures of the MoLR for the construction and credit provided by the USSR will show returns in 6 to 8 years which represents fairly high efficiency for such an extensive and complex project and type of production. The rapid and efficient utilization of Mongolia's natural resources through the joint enterprise with the USSR thus contributes not only to the satisfaction of both countries' requirements for copper and molybdenum concentrates but also acts as a stimulus to the industrial development of all Mongolia.

At the present time another joint enterprise with the USSR, Mongolsovcvemet, is being built in Mongolia. It was established in 1973 on the basis of an intergovernmental agreement of both interested countries. The chief area of its activity is geological research and the mining and processing of fluorite.

Besides building new production capacities they are remodeling and modernizing existing plants.

#### Interlichter

The first multilateral joint enterprise within the CEMA framework--Interlichter--came into existence 19 May 1978 on the basis of an intergovernmental agreement among the BLR, MLR, USSR and the CSSR. The essential collaboration in Interlichter is the transportation of goods between the ports on the Danube and seaports in the Black Sea and the Mediterranean.

The marine carriers are special ships for the transportation of river boats. Every such ship has a capacity of 26 river boats which are stacked over one another. The main importance here is the fact that in the transit from river to sea and the reverse expensive and laborious reloading is avoided.

From these characteristics of existing joint enterprises of CEMA member countries it is obvious that acceptance in the Comprehensive Program primarily involved cases which utilized to a considerable extent specific

conditions of a given production process on a bilateral basis. The establishment of a joint enterprise after admission to the Comprehensive Program is already an indication that this form of socialist economic integration is gradually becoming equal to the need for providing certain production processes, or independent parts of them, on a higher international level.

Experience also shows that the joint enterprise, as the basic cell of khorraschet management in joint international collaboration, is assuming an important place in the whole system of international economic organizations of CEMA member countries. This is so because these organizations too, as long as they operate on the basis of khorraschet principles, will in most cases include the joint enterprise which will thus become the guarantor that the economic activity involved will be carried out. Another practical fact is the importance of suitable incorporation of the joint enterprise into the economic environment of the country in which it is based. From this viewpoint the exterritoriality of these organizations is not appropriate because it prevents the diffusion of individual economic organisms of socialist countries within the framework of the international division of labor.

The need to intensify the process of socialist economic integration under CEMA will undoubtedly lead to the establishment of additional joint enterprises in the near future.

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**LONG-RANGE ELECTRIC POWER DEVELOPMENT DESCRIBED**

Warsaw PRZEGLAD TECHNICZNY INNOWACJE in Polish No 50, 16 Dec 79 pp 16-18

[Article by Czeslaw Mejro: "Science in Power Industry Planning"]

[Excerpt]

**Who Was Right?**

We are not satisfied with the current state of our electric power industry. The electric power shortfall is estimated to have been about 2.6 billion kilowatt-hours in 1977 and 3.8 billion in 1978. This year will be no better in this respect. The basic cause of this state of affairs is an excessively small available power capacity in the electric power stations, resulting from both underinvestment and from difficulties with fuel and transport, breakdowns, repair problems and the like.

The gross increase in electric power output in the past is shown by the following figures: 68 kWh per inhabitant in 1920, and 2,848 kWh per inhabitant in 1975; they indicate an average increase of 7 percent annually. In terms of gross energy consumption per inhabitant, which amounted to 2,934 kWh in 1977, we hold a not-very-commendable 18th place among the European countries.

Under these circumstances there is no question of our country's being "saturated" with electrical energy--quite the contrary. We must expect faster growth of demand than many other countries, since:

we have limited, and decreasing, possibilities for replacing electrical energy with liquid fuels and natural gas;

electrical energy use in households and particularly in agriculture has hitherto not been very extensive.

It is owing to these factors, along with new investments, that in 1971-1975 the average annual increase in demand for electrical energy was 8.4 percent, considerably higher than the average long-term growth rate

Planning work for 1976-1980 assumed an average annual increase in electrical energy consumption of only 6.4 percent, justifying this in terms of an expected weakening in the rate of growth of national income during this period.

Two important mistakes were made here:

it was not taken into account that new industrial enterprises built in 1971-1975 would just be beginning to operate at full capacity, and thus be requiring increased quantities of electrical energy, in the next five-year plan;

the effectiveness of limitations placed on electrical energy consumption by administrative directives was overestimated.

All the leading power engineers, as well as the ministerial Power Institute, protested against the planners' pessimistic forecast regarding the size of future electric power demand. In this connection it is worth quoting from a statement by the late Professor Andrzejewski that appeared in ENERGETYKA No 10, 1975: "The assumption of an increase in electric power output of less than 7 percent annually must mean either a drastic decrease in national income to levels below those for 1971 or--more probably--the assumption in the plan of considerably reduced output values. Interruptions and the resulting production losses will cost society many times more than the planned expansion of the power industry."

In the same issue of ENERGETYKA, Professor Nehrebecki, onetime director of the Committee on Electrification of Poland, Polish Academy of Sciences, wrote:

"The methods hitherto used to plan electrical energy demand for the short term are likely to prove deceptive for the period through 1980."

Experience has confirmed the scientists' predictions, with the lamentable result being the electric power shortages mentioned above.

Work on further expansion of the Polish power industry is being conducted in two scientific centers. The Committee on Power Production Problems, Polish Academy of Sciences, operating under the leadership of Professor Kazimierz Kopecki, has produced an exhaustive expert's report which synthesizes the views of Polish experts on the fuel and energy economy. We could wish that the points made in this report had been better accepted and had been completely incorporated into the abovementioned works of the Committee on Electrification of Poland.

Efficiently or Sparingly

Previous forecasts of the development of the power industry made by various methods have foreseen a gross national demand of 180-190 billion kWh in 1985

and 245-280 billion kWh in 1990. The layout of power grids planned for 1990 (see figure) is in accordance with this forecast, and is thus considerably different from previous plans.

Other planning forecasts, based not on demand but on production capacities, predict an output of 160-170 billion kWh in 1985. This means a continuation and perhaps a worsening of the electrical energy shortfall in the country during the next 5-6 years, imposing on power engineers the obligation of using electrical energy efficiently. We purposely do not say "using it sparingly," since the greatest economic effectiveness does not always and in every place correspond to decreased consumption of electrical energy.

Expansion of the use and thus of the output of electrical energy must be considered against the background of the entire fuel and energy economy. Supplying the country with energy cannot be treated as a service activity even today; the role of energy as a factor stimulating the development of the national economy and as one of the main elements making up the "quality of life" of the populace is growing.

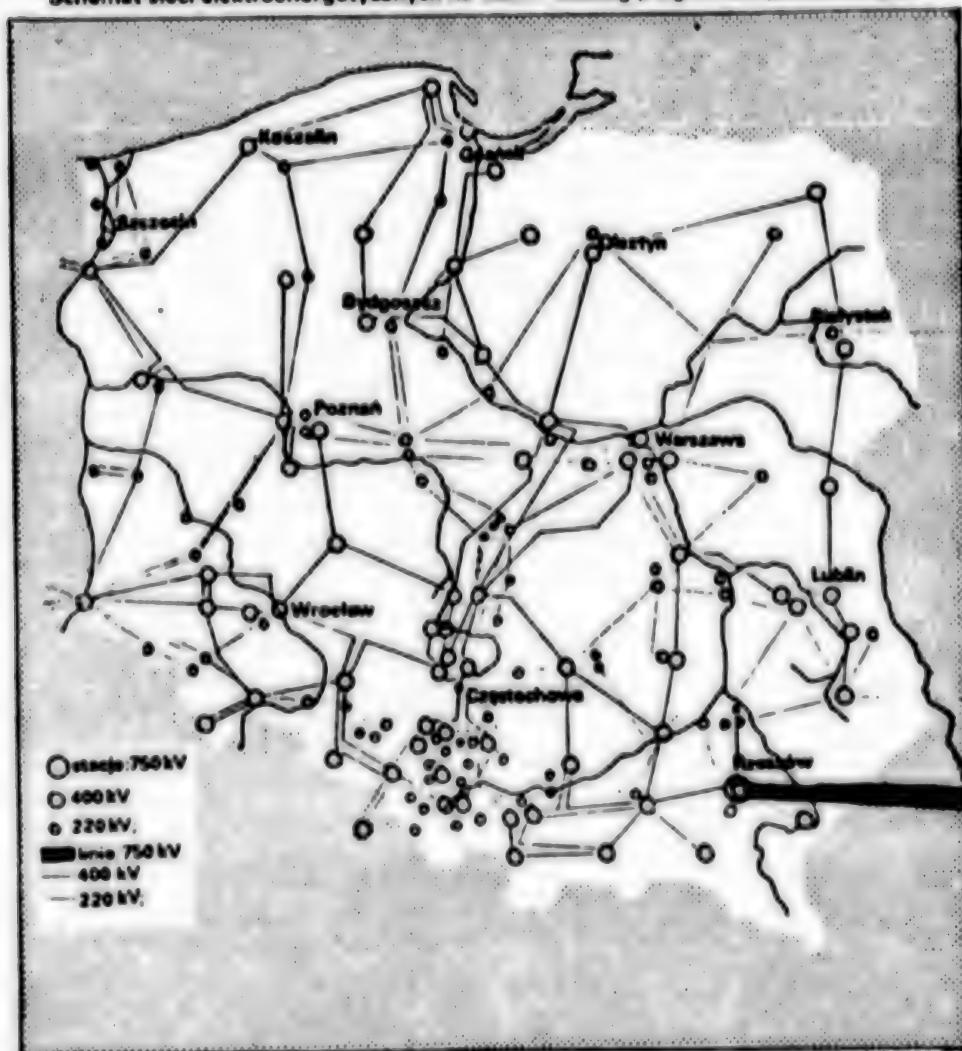
The connection of the energy system and its subsystems with the other branches of the national economy is becoming so strong that we cannot imagine proper development of the country without a well-developed power industry nor, conversely, can there be correct expansion of the power industry without proper development of the industry which supplies it, transport, construction, international exchange and the like.

The energy system is conventionally divided into five subsystems, two of which (electrical and gas energy) have nationwide networks; the heat energy subsystems, on the contrary, have a regional or local character. The liquid fuel subsystems are only partially provided with a pipeline network, while solid fuel systems make use of the service of other transport systems (rail, highway or water).

An essential feature of all these subsystems is that they belong to a unified energy system; their common task is efficient utilization of the nation's energy resources and cooperation in satisfying optimally the needs of energy consumers. The majority of the internal interconnections of the energy system are two-sided in nature; for example, the fuels mining industry is the main supplier of primary energy and at the same time an important purchaser of electrical energy, heat energy and the like. From these internal interconnections also stem limitations on the development of the power industry.

Besides the decreasing supply of manpower, the growing material and machine intensiveness of mining which results from the necessity of ever-increasing mechanization of labor in the mines is coming to be a limiting factor on coal output. In addition, this has an indirect effect on the quantity, and even more on the quality, of coal supplied to thermal electric power stations, with all the attendant consequences (decreased efficiency and availability, pollution of the environment, increased rail haulage and the like).

Schemat sieci elektroenergetycznych na 1990 r. według prognoz dottyczesowych



Layout of Electrical Grids for 1990, According to Past Forecasts.

Key: ○ Stations; — Lines

We are aware of the difficulties of coal transport resulting from underinvestment in our railways. The possibilities for using open-cycle water-cooled condensers are decreasing. Such possibilities only remain in the thermal power plants located on the Lower Odra and Lower Visla. An increasing role in the siting of new electric power stations is being played by environmental protection considerations, particularly involving dust and sulfur pollution of the atmosphere.

#### The Brown Coal Approach

What, under these conditions, are the prospects for development of the electric power industry, and in particular for the production of electrical energy?

The factors mentioned above which limit the extraction and transport of coal have led to the decision not to build other steam power plants burning hard coal (other than Polanka and Opole). The idea has arisen of building large electric power stations fired with brown coal, with the Belchatow power station (4,320 MW) in the forefront. This conception is bold and in many respects controversial.

Unquestionably the building of brown coal opencuts and the siting of electric power stations directly in them will solve the problem of limited manpower availability and will not burden rail transport. However, this will do nothing to limit the material and machine intensiveness of coal extraction, will create new water management difficulties, and above all will increase environmental pollution. Unfortunately, our brown coal contains large amounts of sulfur: 3.9 g/Mcal in Turow, about 3.2 g/Mcal in the Belchatow I deposit, and an average of 6.8 g/Mcal in the Szczecin (Belchatow II) deposit; for comparison, the hard coal which was burned in Jaworzno in 1974 contained 6.4 g/Mcal.

Under these conditions, in view of the increasing nationwide "background" of pollution, in the next few years it will be impossible to maintain the specified standards regarding pollutant concentrations without equipment for desulfurization of exhaust gases.

It may be presumed that this will force us during the next ten years to build new power stations burning hard coal, while at the same time it will become essential to supply power stations with coal of better quality, and particularly with a lower sulfur content.

We are quite slow in building nuclear power stations; the first block at Zarnowka is likely to be started up before 1986. The question of developing nuclear power largely depends on the development of co-production between our industry and that of other countries; if we manage to take on and successfully cope with the production of nuclear power station components, we can expect that the stations themselves will be built here.

This does not mean that it is exclusively the electro-engineering industry that is responsible for the fate of Polish power production. Power engineers have been assigned immense tasks, particularly regarding rationalization of the fuel and energy economy. Our country's situation is particularly difficult in this area; we cannot rule out the possibility that our justifiably increasing internal needs may force us to limit exports of coal. That would not be unfortunate if the output of our processing industries could assure the country of the needed quantity of foreign exchange (even for purchases of fuel and energy).

#### A Solution in "Active Coordination"

The proper development of the energy system depends upon successful development of the entire national economy. This requires an effort by the entire society, with engineers and technicians in the forefront.

Whether and when we will succeed in getting out of the current impasse in power production will depend, among other things, upon:

whether we succeed in organizing industrial and power production work well;

whether our engineers have effective incentives (only only material!) for work, initiative and utilization of capabilities and knowhow;

whether technical schools devote greater attention to the training of systems engineers, people interested not only in narrowly technical problems, but also in economic, sociological, ecological, organizational and other types of problems;

whether methods of systems-oriented scientific thinking are used in our economic and spatial planning;

whether we ultimately manage to organize a scientific group to carry on continuous strategic studies on the development of power production, making multivariate forecasts of the production of fuels and the conversion of the energy they contain into electricity, heat, artificial gas, petroleum products and the like and the transmission, distribution and utilization of all these energy sources.

The numerous tasks of the group just mentioned would also include passing judgement on all types of investment measures as regards their energy intensiveness, a search for energy-saving processes in industry, agriculture, construction, transport and household economy, and so on. These are immense tasks.

Work on developing Government Program No 8 (Power Production) has been going on for ten-odd months; views and ambitions are in collision. Those who have solid experience in working with the energy system are by and large in agreement.

Because of our relatively limited manpower, we must begin to concentrate our specialists in a single powerful institute whose task would be to work on the comprehensive development of power production and simultaneously to coordinate the work being done in ministerial and academic institutes on energy subsystems or the energy economies of the individual ministries or economic sectors.

Experience teaches us that only this type of "active coordination," i.e. coordination by a strong group performing synthesizing work, can produce positive results.

These conditions are not met by "passive coordination," based solely on distribution of topics and resources for work on them; this type of activity easily turns into clerical work, and the influence of a "passively" coordinating group in the real course of the work being coordinated and on the monitoring of its performance becomes after a certain time fictitious.

The best power systems engineers from other currently active but for the most part numerically rather weak groups in the Polish Academy of Sciences and the ministries and schools should be transferred to the leading group, which for objective reasons cannot at present include more than 6-80 persons.

9427  
CSO: 2600

## POLAND

### NEW DEVELOPMENTS IN MARITIME FLEET DESCRIBED

Warsaw MORZE in Polish No 2, Feb 80 pp 5-7

[Article by Jerzy Micinski: "What Is New Under the Polish Flag"]

[Text] The past year of 1979 did not produce any increase in the state of the Polish fleet. What took place was scarcely sufficient to compensate for the planned scrapping and exceptionally numerous losses in 1979. However, at least two essential matters are worthy of emphasis: the liner fleet finally entered a definite period of modernization, unfortunately still based more on foreign orders than on deliveries from our own shipyards, and the tramp fleet practically completed replacement of obsolete steam tonnage in 1979 by motor-driven vessels, although here also foreign deliveries were the basis for maintaining their numbers. Below we shall discuss the details, but without publishing a full list of ships. They will be published again in a year (interested readers can find the previous lists in issues of MORZE from January to March 1979).

### Polish Ocean Lines

The Gdynia shipowner received five ships in 1979, if we ignore the fact that the ships "Dzieci Polskie" and "Profesor Rylke" only came under the flag in January 1979 (the first on 12 January and the second on 20 January) as a result of shipyard delays, although a year ago we had indicated that these were units to be "credited" to 1978. Likewise in January (19 January) the first PLO [Polish Ocean Lines] acquisition of last year came under the flag, the refrigerator ship "Gdynski Kosynier," identical to the "Dzieci Polskie." On the other hand the third and last vessel of this series, the "Zyrardow," which was to enter service in December 1979, will not be ready until the first quarter of this year. These are banana ships of the B-437 type (technical description and diagram in the issue of 4/79). The Shipyard named for Lenin in Gdansk has built a number of

similar vessels for export. In this case, because of the lack of any other possibilities, the hulls were built in Portugal (Arsenal de Alefeite near Lisbon), while the Gdansk Shipyard took on the outfitting work. Unfortunately, the installation of certain essential elements in the refrigeration installation, in the form of unverified prototypes, made it impossible for the first two of these ships to fulfill their role as banana ships for a rather long time; Therefore they have carried fish from fisheries. We hope that the third refrigeration ship will be free of this defect. It is a shame that someone insisted on the name "Zyrardow," which does not match the others in the series.

The next flag-raising in the PLO took place on 8 June. A second express semicontainer ship of the B-467 type from the four "writers" series entered service on this day, commissioned in the Shipyard named for Warski in Szczecin. On the occasion that the prototype ship, the "Jozef Conrad Korzeniowski," was put into service, we devoted a great deal of space in MORZE to these promising vessels, the largest and fastest in the fleet of the Gdynia Shipowner (17,200 tons deadweight, more than 25 knots. A colored illustration, technical description and diagram are found in the issue of 1/79). However, the shipyard is filling the order at such a slow rate that the shipowner is not able to use these new vessels as he should, and there is no "striking" launching with really excellent tonnage, while the modernization of the Australian Line is being broken into small pieces. Thus the second B-467, "Adam Mickiewica," only entered service in June 1979, and we must wait another year for the advent of the third vessel. As far as the fourth is concerned, it has been completely scrapped from the shipyard's plans....

The next vessel received by the PLO was also a year late, although this was partially due to circumstances beyond our control. Actually on 5 July 1975 the third and last of the "professors" series of the B-340 type, the semi-container ship "Profesor Mierzejewski," came under the flag. The entire trio of ships is the result of coproduction between two Yugoslav shipyards, which made the hulls, and three Polish shipyards which took over the outfitting. The "Profesor Mierzejewski," launched as the first in June 1977, has come under the Shipyard named for the Paris Commune in Gdynia. Unfortunately, while being towed to our country, the hull of the ship scraped some rocks and suffered serious damage. Therefore before outfitting was begun, it was necessary to repair the hull, and this continued throughout the entire construction period. However, the three "professors" (there should be more of them) are finally servicing the PLO Australian Line, making an outstanding contribution in improving its competitiveness (technical description and diagram of these ships are found in issue 6/79).

Finally, at the very end of 1979, semicontainer ships from the series of the four "painters," commissioned by the PLO in the Canadian Marine Industries Shipyard in Sorel (Quebec), began to enter service. The prototype, "Jacek Malczewski," raised the flag in Gdynia on 5 November 1979, with

Table. Tonnage of Ships Which Strengthened the PMH [Polish Merchant Marine in 1979 (in the order of discussion in the article).

Ship	Gross Tons	Net Tons	Deadweight Tons
GOŁĘBSKI KOSYNIER	2099/24114	1172/2328	2092/2427
ADAM MICKIEWICZ	17222	11242	17222
PROFESSOR MIERZELIEWSKI	16723/16359	10572/10774	16698/16359
JACEK MALCZEWSKI	13008	7871	17437
JOZEF CHELMORSKI	13012	7873	17437
UNIWERS TET ŚLĄSKI	20301	13041	33470
JAROSŁAW	1538	1002	2726/2968
BOLESŁAWIEC	2997	1613	4360
SIERADZ	2997	1613	4361
ONIEZNO II	2996	1613	4358
WYSZKOW	2997	1613	4361
MLAWA	2997	1612	4361
KOPALNIA SZKODZIEK	16874	6335	16728
KOPALNIA JASTRZĘBIE	11034	6364	16728
KOPALNIA SIEMIANOWICE	10997	6356	16728
SILESIA	7614	3804	1047/1757

the second in the series, "Jozef Chelmonski," at the end of December.\* These are ships whose qualities are very close to those of the "professors," and have a deadweight of over 17,400 tons and a speed of approximately 20 knots, capable of carrying 370 20-foot containers. From the deadweight aspect they beat the PLO record, "dethroning" the "writers" series. Another of their virtues is having modern on-deck cranes instead of derrick booms. The third ship in this series, the "Artur Grottger," will enter service in the second quarter of 1980, and the fourth will do so in the third quarter of this year.

The fourth "painter" was to be named the "Juliusz Kossak," but it was launched as the "Boleslaw Ruminski." The deserving party and state worker, the former minister of the chemical industry, Boleslaw Ruminski, certainly merits this type of memorial, just as do many other PRL [Polish People's Republic] workers who have died recently. And why should a separate series of ships not be assigned to them, and the more so because two new very attractive ones have just been commissioned (more on them later).

It makes no sense to establish names in some kind of order, to establish series of one type or another, if later it becomes impossible to consistently carry these proposals out. We do not have to go back to outdated

\*The article was prepared in mid-December last year. The entry of the "Chelmonski" into service was anticipated in December 1979 by the PLO investment service.

examples (the practice began in 1960 when the "Bydgoszcz" broke the great, beautiful series of names in "-ica"). I shall only mention the fact that after the "painters" came the "writers" and after "Jozef Conrad Korzeniowski" and "Adam Mickiewicz," the name of the third in the series (with "Juliusz Slowacki" anticipated) is to be "General Kleesberg." Again, without having the slightest thing against a name as such, let me raise a question: In this case why not wait another year and name some of the ships recently ordered in France or in Spain within the framework of a newly created series, let's say, "famous Polish commanders?"

These considerations on the subject of names have led us to the matter of PLO orders for ships which are in the process of construction. In addition to the "Zyraudow" from Gdansk, a third "writer" from Szczecin and two other "painters" from Canada, the Gdynia shipowner may be able to count only on the roll-on-roll-off ship "Inowroclaw" being built in Finland in 1980. This very interesting ship, the first of its kind under the Polish flag (not counting the small "Starograd Gdanski"), will assume in March "Polanglia" container service established jointly by the PLO and the United Baltic Corporation between Gdynia and English ports. On the English side the similar "Baltic Eagle" ship has been stopping regularly every week since last November at the container base under construction in Gdynia.

While 1980 may still be "lean," the following years are beginning to look extremely interesting for PLO. Last year saw the signing of two very attractive contracts. The first, concluded in May, refers to the construction of four large combination ships of the container-roll-on type in French shipyards, combining the features of a container ship and a vehicle-carrier ship (roll-on-roll-off ship). These will be vessels of approximately 22,000 tons deadweight, each capable of carrying, among other things, 1,100 20-foot containers and capable of achieving a speed of 21 knots. Along with the ships, complete equipment will be purchased in the form of containers, fork-lifts, trailers and so on. It is expected that all ships will be delivered during the second half of 1980. The contract was made within the framework of a French-Polish partnership formed for this purpose, and based on principles similar to those of the Polish-British partnership published by the PZM [Polish Steamship Company]. For 10 years the ships will be chartered by the PLO and, after credit has been repaid, they will become the property of the Gdynia shipowner.

A second contract was signed with Spanish shipyards last December. They will build four large ships of the roro [roll-on-roll-off] type for the PLO on credit terms. They are to be delivered after 1981.

However, the two orders mentioned above for new liner tonnage do not guarantee that the urgent needs of the PLO will be met. There are too few of them and the deadlines for them are too late. The need to scrap almost half of the tonnage owned by the PLO in the very near future,

gradually exceeding the maximum age, looms larger and larger. This is the reason that three ships were sold for scrap last year: the 10,000 ton "Kapitan Kosko" (built in 1957), the "Stefan Okrzeja" (also from 1957) and also the "Gdansk," (constructed in 1954), the last of the "Levant" series. The Gdynia shipowner lost two vessels because of catastrophes, fortunately without loss of life. On 20 January 1979 the ship "Zamosc" went down at Skald as a result of a no-fault collision. On 18 June the "Traugutt" began to burn on the Karachi roadstead. Poorly executed rescue action resulted in the complete loss of the ship. Thus, the PLO balance for 1979 with respect to the number of ships owned is zero. Five new vessels came into service and five were removed. The gain is different: the process of modifying the PLO fleet was clearly inaugurated.

#### Polish Steamship Company

The year 1979 was relatively "fat" for the Szczecin shipowner, including a total of no less than 23 new ships, including one from a Polish shipyard and the rest coming from full implementation of a contract with British shipyards within the framework of the Polish-British Maritime Transport Enterprise. Unfortunately the British shipyards did not live up to expectations and scarcely completed one-third of the contract. In balance the PZM [Polish Steamship Company] received 10 ships last year, making the quantitative increase completely symbolic in view of a simultaneous removal of 9 vessels. Nevertheless there was obviously a definite improvement in the modernity of the PZM fleet.

The Shipyard named for A. Warski, fulfilling its contract for four 33,000 ton bulk carriers of the B-517 type, delivered the third ship of this series, the "Uniwersytet Slaski," to the Szczecin shipowner. The flag was raised on 1 June 1979. At the present time nothing is heard of the fourth vessel.

The Shipyard named for Lenin in Gdansk has built the next bulk carrier-lumber ship of the B-431 type in the series used by the PZM within the framework of the Polish-Norwegian Maritime Transport Enterprise, and put it into service under similar conditions. The ship was named "Jaroslaw." Its delivery and the raising of the Polish flag took place on 2 July 1979 (technical description and diagram of the B-431 type in issue 2/79).

Considerably earlier, since it was 12 April, the ceremony of the official raising of the flag over the first of the series of 15 4,400 ton bulk carriers, built by the nationalized British shipyards for the Polish-British Maritime Transport Enterprise, represented by PZM for us, took place. This ship, the "Boleslawiec," aroused a great deal of interest as a prototype of the basic PZM tonnage for the immediate future in European tramp service (technical description and diagram in issue 7/79). The next official flag-raising occurred on 31 May in Szczecin over the ship "Sieradz" (this ceremony was arranged right after the performance of the

first service run, right from the British shipyard). The third ship in the series, "Gniezno II," had its flag raised on 5 July, the fourth, "Wyszkow," on 16 October and the fifth, "Mlawa," on 28 December. This is where the deliveries last year finished, despite the original expectations that the entire series of 15 vessels would be included. This was caused by various matters, both some technical deficiencies which required correction, and primarily the continuing and even worsening internal difficulties of the nationalized ship industry in Great Britain, the increasing deficit, measures to cut expenses, reductions in gangs, labor strikes and so on. The disruption of the delivery schedule accepted by the builder in the contract also has painful effects for the Szczecin shipowner, because his energetic action in scrapping obsolete steamships deprived him of a significant part of the tonnage which actually had to be replaced by ships of British construction. Transportation, particularly of coal, continues to wait.

The identical situation occurred in the group of 7 bulk carriers of 16,500 tons each, included in the same contract and supposed to be delivered last year. As a result only three of these vessels came into service under the Polish flag, and this only at the very end of 1979. Thus on 24 October (after its first service voyage was finished) the flag was raised over the prototype "Kopalnia Szombierki," and following it, although not until December, the "Kopalnia Jastrzebie" and "Kopalnia Siemianowice" entered service (technical data and diagram in issue 1/80). This is where deliveries of this group of ships finished, while the other four, just like the 10 smaller ones, should enter service during this year.

As far as scrapping is concerned, it included two groups of ships. In the first quarter of 1979 all steam-driven ships (except the historic "Soldki," destined for a museum) were sold for scrap, the majority to Spain. In this way the ore-coal carrier, "Brygada Makowskiego" (built in 1950) departed in January on its last voyage, and the "Zielona Gora" (1961) and "Cieszyn" (1958) were sold in February, and the "Szczecin" (1954) and "Slawno" (1957) were sold in March. In the second half of 1979 the rather unsuccessfully conceived series of all-purpose general-bulk carriers of the B-512 type, built in Szczecin in 1963-1966 (nine ships in 3 years, such was the tonnage delivery for PMH [Polish Merchant Marine]!), began to be eliminated. In this way the prototype "Kolejarz" was sold in July to the Korean People's Republic, in the same month the "Stocznowiec" was sold to a Greek shipowner, coming under the flag of Panama, and in October the "Metalowiec" was sold to the same shipowner.

The PZM was also hurt by a series of catastrophes in 1979, particularly on 17 March when the "Koronowo" (built in 1978), a brand-new motor ship of the Polish-Norwegian Maritime Transport Enterprise, went to the bottom near Bornholm as a result of the on-deck cargo of lumber shifting in a storm. For a couple of days the ship remained in a half-floating position with the bow projecting above the surface, and there was an excellent chance of saving it by means of a large floating crane brought to the site

of the accident. Unfortunately, poor weather conditions thwarted the activities of the Polish Ship Salvage Enterprise. Fortunately no loss of human life was recorded in this mishap.

#### Polish Baltic Maritime Transport

Our youngest shipowner organized a flag-raising ceremony only once in 1979. This took place in Szczecin on 29 June on the second successive automobile-passenger ferryboat built by the Shipyard named for A. Warski, the B-490 "Silesia." Compared to the prototype "Pomerania" (technical description in issue 3/79), the new acquisition of the PZB [Polish Baltic Maritime Transport] has a number of improvements and enhancements, including more carefully finished passenger cabins, considerably improved limits on noise and vibration, and improved air-conditioning. The ship has become part of the Swinoujscie-Ystad Line. The third and last of the series of B-490 type ferryboats (of which there were initially to be seven and later four) will be built this year and may enter service next year. It is to be named the "Masovia" (Mazovia"?).

Last year did not provide the PZB with any acquisitions in respect to cargo tonnage. There was talk of transferring several ships from the PZM, but it has not come to this, at least for the time being. On the other hand an agreement was made with the Association of River Shipyards for the delivery of a series of 10 lumber ships of 1,500 tons deadweight each, partially adapted to navigation in the ice of the icy Baltic. At present no details are known about this contract.

With regard to a reduction, this coastal shipowner has so far gotten rid of one of its smallest ships, namely the coastal ship "Emilia" (built in 1967, 450 tons). A second of these ships, the "Flora," transports mineral fertilizer directly from Police near Szczecin to Kolobrzeg, successfully relieving the strain on railroad and truck transportation.

6806  
CSO: 2600

URBANIZATION TRENDS, SYSTEMATIZATION, OBJECTIVES STUDIED

Bucharest REVISTA ECONOMICA in Romanian No 52, 28 Dec 79 pp 6-7, 10

[Article by Dr Vladimir Trebici]

[Text] The 12th Party Congress in the documents of its program confirms that its fundamental objective is, besides increasing the standard of living, the continual improvement of the quality of life. Correspondingly, the strategies for socio-economic development are made subordinate to the attainment of this goal. Furthermore, improvement of the quality of life in all aspects and areas of our society is becoming, must become the conscious and steadfast concern of all our citizens. This new phase in our country's history has become possible on the basis of the quantitative achievements made in the political, social, economic and cultural areas as well as in terms of the standard of living. This is the result of the enormous efforts that characterize the three and a half decades of socialist construction.

In the following we will examine the extensive strategy and the objectives of urbanization and the systematization of the national territory from the perspective of the requirement to improve the quality of life during the upcoming 1981-1985 Five-Year Plan. Comparisons with our own past as well as certain information on international trends will aid us in better shedding light on the new characteristics of the process that will unfold in the future.

Theoretical Premises: It is generally accepted that the dialectic relationship between general welfare and quality of life, between standard of living and happiness, is that which exists between the premises or conditions created by society, i.e., the objective conditions, and their perception in the individual and collective consciousness, i.e., the subjective conditions. On the other hand, in the hierarchy of necessities we distinguish the physical or material, the intellectual or spiritual, and, on the highest plane, the social needs of man, i.e., the need for communication, interhuman solidarity and participation in the political and social realms. The satisfaction of these needs is achieved to varying degrees in each stage, according to the extent of development attained. The provision of the necessary material conditions is decisive in this complex process. The primary needs cannot be satisfied without sustained economic development and the attainment of a certain

level in this development. And, as a result, one cannot proceed to the fulfillment of the other needs and advancement in the quality of life. The process can be compared to the passage from the extensive to the intensive, from quantitative to qualitative. In the process of improving the quality of life's general welfare, as a state created and offered by society, is merged with the higher aspirations of the people. The collective interests are "harmonized" with those of the individual. And insofar as the supreme rationale of all planning and activities in our society is the multilateral development of the human personality, it is clear that improvement of the quality of life requires a high political and social consciousness on the part of all citizens and the organized, steadfast participation by all in the fulfillment of this fundamental objective.

#### Urbanization--between the Quantitative and the Qualitative

Concern for the improvement of the quality of life must be present at all levels and in all areas. We, therefore, take into account the quality of the material conditions of life, consumer goods and services, the quality of living space (i.e., cities and villages, residences), and the quality of health, education and culture in order to finally determine the quality of life in society and in the relationships between people--in the spirit of authentic humanism.

The process of urbanization and systemization of the national territory hold a place of special importance in this framework. The urban and rural habitats are environments of social life with their distinct characteristics and are comprised of a structural and a socio-economic milieu integrated with the ecological surroundings. They include a quite diverse network of localities in which people live, conduct their activities, participate in the political, social and cultural aspects of life, advance themselves and fulfill their aspirations. Historically speaking, the urban and rural environments exhibit due to their objective conditions a varying degree of realization of the quality of life. Due to its specific characteristics the urban environment created a way of life, a "cultural model," in which certain qualities were superior to those in the rural environment. This particularly involved the material aspects of civilization. On the other hand, the rural environment, that is more precisely, the Romanian village was the creator and preserver of the cultural values and way of life that identified with the very essence of the Romanian people. For centuries in antagonistic opposition, the village and city began an energetic process of transformation under the conditions of socialist construction and in accordance with the new social relationships, a process whose goal is the continuous improvement of both city and village, the "reconciliation" of the two living environments, the leveling off of their major differences and the restructuring of all localities according to the criteria of economic and social efficiency.

These objectives are at the forefront of the plans for systemizing the national territory, an integral part of the overall strategy for the country's socio-economic development to which considerable assets have been assigned spread out over time due to the unusual dimensions of this effort. The process of urbanization must be viewed from this general perspective as the most important component due to its socio-economic requirements and consequences.

The urbanization of our country was and is an objective necessity tied closely to economic growth and necessitated by socialist industrialization. The legal aspects of this process are, however, specific to the conditions in our country. This is evident when one examines the phases of urbanization undergone during the three and a half decades of socialist construction and the perspective planes for the 1981-1990 decade. The process of urbanization had several characteristic traits under the historic conditions of Romania's socio-economic development, i.e., during the past regime. The extent of urbanization, i.e., the proportion of urban population with the country's overall population, was small and urbanization in many parts of the country was marked by obvious disparities. This situation was confirmed by the census of 1958 (see Table 1).

Table 1

Number of Cities, Proportion of Urban Population and Average Size of Cities, Based on Censuses of 1912, 1939 and 1948.

	1912	1939	1948
Number of Cities	128	142	152
Urban Population (in percent)	16.2	21.4	23.4
Average Number of Inhabitants/City	16,917	21,487	24,547

Growth between 1930 and 1948 was relatively insignificant. In many cases the differences between city and village were very small with regard to the existence of public facilities and utilities, constructed space, residential areas and employment of the population. But even under these conditions an urban concentration developed that was parallel to the industrial concentration and resulted in a disproportionate level of urbanization among the various areas of the country. For example, in 1930 when there was an average level of national urbanization of 21.4 percent of the population the least urbanized district [judet] had an urban population of only 2.1 percent of the total district population, while the most urbanized district had 36.2 percent. In 1948 the least urbanized district had 6.3 percent while the most urbanized had 35.2 percent.

The process of urbanization experiences progress on several planes simultaneously with the socialist industrialization of the country. The number of cities grows, the percentage of urban population increases and the national distribution of urbanization is gradually improved. To the growth indicated by the data in Table 2 one should add the improvement of living conditions and increase in the availability of public facilities and utilizes, a particularly energetic developmental process after 1965.

During the 1961-1965 Five-Year Plan 348,999 new apartments were made available. During the 1966-1970 period the number of new dwellings increased by 386,934 while during 1971 to 1975 it grew by 562,437. The figure was 394,344 for the

years 1976 to 1978. This represents an annual average of 131,344 new dwellings or 88 percent more per year than during the 1961-1965 plan when the annual average was about 70,000 dwellings.<sup>1</sup>

Table 2

Number of Municipalities and Cities, Proportion of Urban Population, Average City Population and Extent of Urbanization Among the Nation's Districts

	Census of:			Estimate for:
	1956	1966	1977	1 July 1979
Number of Municipalities and Cities	171	236	236	236
Urban Population (in percent)	31.3	38.2	47.5	48.6
Average Number of Inhabitants per City	27,758	28,576	39,805	41,437
District with Smallest Urban Population (in percent)	10.4	11.5	23.8	25.5
District with Largest Urban Population (in percent)	60.3	67.8	71.8	72.8

The progress achieved in the area of public facilities and utilities illustrates the qualitative character of the development. While there were 88 municipalities and cities with water supply in 1950, by 1950 their number had rose to 231. The number of cities with public transportation increased during the same period from 27 to 217.<sup>2</sup>

The progress in the area of school, hospital and cultural institution construction could also be added to this detailed listing.

The conclusion is that the process of urbanization initially experienced growth noted for its quantitative aspects. Qualitative characteristics then began to gradually appear. The result will be that the qualitative aspects will be given priority during the 1981-1990 decade in accordance with the requirement for continuous improvement of the quality of life.

The Urban Plan Balance

Before analyzing the plans for the future as outlined in the documents of the 12th Congress and in order to better understand their significance it is necessary to review a few of the aspects of urbanization and territorial systemization with emphasis on urban growth and concentration.<sup>3</sup>

The growth of the urban population and the resulting increase in the ratio of urban to total population were attained in three ways: Natural growth of the population, the influx of the village to city migration and the redesignation of certain rural localities as urban. Although the birth rate in the cities was lower than that in the villages the growth rate of the urban population was generally three times greater than that of the total population. The principal factor in the urban growth was the village to city migration. An additional minor effect was brought about by the

change in official status of certain rural localities. During the period between the 1966 and 1977 censuses the urban population increased by 2,931,152 of which 34.2 percent was due to natural growth in the population, 60.5 percent to net population migration and 5.3 percent to administrative modifications. The contribution of about 60 percent to total urban growth through migration was approximately the same as that recorded during the past 10 years for the developed countries and somewhat greater than that for countries still in the course of development. It must also be noted that the effects of internal migration vary according to the size of the city. The larger the city, the stronger its attraction over that of the village or even smaller cities. The 19 municipalities and cities with populations over 100,000 have absorbed the largest part of the village to city migration.

The village to city migration, as it has manifested itself to present, has meant the "transplanting" of a population of several millions from villages to the cities. During the period from 1948 to 1977 the villages "gave up" over 500,000 persons to the urban population. Between 1966 and 1977 the largest migratory shifts originated from the lesser industrialized and urbanized districts and the major recipients were the districts having the greatest degree of industrialization and urbanization. The village to city migration also took place over large, even very large distances, depending on the particularities of the stage of economic development of the losing and gaining districts.

Thus we arrive at an important finding that explains some of the measures proposed for the decade 1981 to 1990. The movement of population from village to city, for the most part economically justifiable, has created certain demographic disproportions among both the rural and urban populations. Furthermore, certain districts with only minimal industrialization but a high birth rate have even begun to lose their demographic substance, giving up not only their entire natural growth but even a portion of their base population. The population of Vaslui District from 474,691 in 1973 to 440,000 in 1978, that of Botosani District from 485,714 to 454,425, of Ialomita District from 391,665 to 374,842 and of Ilfov District from 810,884 to 778,900. It should be noted that in all cases it is the youth, with their higher level of education, that move to the cities. This negative phenomenon, this particular territorial disparity is, thus, added to the overall demographic imbalance within the rural population. Its alleviation and eventual elimination are provided for in the programs and directives of our party for the years 1981 to 1990.

Essentially a positive process, urbanization can under certain conditions develop negative aspects. The most significant of these is excessive urban concentration. Such trends are also known on the international level, both in the developed countries and in those still under development, and are identified by such designations as megapolises, "superconurbations," etc. Such manifestations of urbanization create grave consequences. The urbanizations process was examined in all its extensiveness at the UN Conference on Human Settlements held in Vancouver in 1976. Does an excessive urban concentration actually exist in Romania? According to the statistical data, a certain urban concentration has without a doubt developed (See Table 3).

Table 3

Grouping of Romania's Municipalities and Cities and the Percentage Proportions of Their Populations in the Years 1956, 1966 and 1978

	1956	1966	1978
Total:	100.0	100.0	100.0
I. Small Cities	27.8	25.5	15.1
Under 3,000 population	0.3	0.2	0.1
3,000-4,999	1.2	0.8	0.4
5,000-9,999	7.8	8.4	4.6
10,000-19,999	18.5	16.1	10.0
II. Mid-Size Cities	29.3	27.8	30.2
20,000-49,999	15.5	18.9	17.3
50,000-99,999	13.8	18.9	12.9
III Large Cities	49.2	46.7	54.7
100,000-199,999	18.1	26.4	12.6
200,000-299,999	--	--	23.1
Municipality of Bucharest	24.8	20.3	19.0

A characteristic phenomenon of this process is the drop in the percentage of the population of small cities to 15.1 percent and the corresponding increase in the percentage of the population of large cities from 42.9 to 54.7 percent in 1978. Although such urban concentrations as cities of over 200,000 inhabitants may seem justifiable from the economic as well as the public facilities and utilities and social development viewpoints, the continuation of this trend could create serious negative consequences. Future planning is aimed to prevent such phenomena.

Among the municipalities and cities there also exists a certain disproportion between the nation's capital and the other large cities as well as between the large and small cities in general. The Municipality of Bucharest encompasses one-fifth of the total urban population. The number of its inhabitants is almost 6.7 times greater than that of the Municipality of Iasi, the nation's second largest in size. Precisely for this reason a balanced distribution of the large cities is considered necessary in the planning of the country's urbanization. A corresponding more rapid development of the small and mid-size cities is also absolutely indispensable. The 142 small cities (i.e., with less than 20,000 pop.) as of 1978, comprising 60 percent of the total number of municipalities and cities, have an average population of approximately 10,000. The 75 mid-size cities (i.e., 20,000 to 100,000) have an average of about 39,000 each, while the large cities, excluding the Municipality of Bucharest, have an average size of about 194,000 inhabitants.

In spite of all the progress achieved the differences around the country with regard to the distribution of urbanization among the districts are still major. There are districts with as few as only four cities, others with as many as 14. The proportion of urban population in the most urbanized district is nearly 73 percent, in the least urbanized it is about 26 percent. All these facts indicate that there are considerable possibilities for new progress in the planning of urbanization.

#### Toward a Higher Quality of Urbanization

A careful study of the program documents of the party's 12th Congress reveals principles and guidelines in the area of urbanization and territorial systemization that are of special value both theoretically and in practice. The qualitative concerns are predominate both in terms of improving the already mentioned planning and for increasing the quality of life. Urbanization will continue but at a different pace than in the past and with aspects which are specific for the new stage of development. The percentage of urban population will increase at a slower rate during the 1981-1985 five-year period than during the 1976-1980 period. The emphasis within the framework of territorial systemization will fall on the preparation of certain rural localities for reclassification as urban areas. A total of 129 localities will be added by the end of the present five year plan to the already existing 236 municipalities and cities. And 140 more rural localities will be recategorized as urban during the upcoming five year plan. The proportion of urban population in the total national population will be 52.2 percent by 1980 and 54.5 percent in 1985 (See Table 4).

Table 4

Number of Municipalities and Cities, Size of Urban Population and Percentage of Urban Population in the Years 1965, 1975, 1980 and 1985

	1965	1975	1980	1985
Number of Cities	184	236	365	505
Size of Urban Population in Millions	6.4	9.2	11.7	12.9
Percentage of Urban Population	33.7	43.2	52.2	54.5

Several conclusions can be drawn from this orientation with broad implications for the quality of life. The process of urbanization will become more and more an urbanization of rural localities "at place of residence." And the village to city migration will be considerably reduced in intensity and, correspondingly, in its negative consequences.

The highest rate of urban population growth will remain that of the 1975 to 1980 period due to the combined effect of an intense village to city migration and the reclassification of 129 rural localities as urban. The rate will be greatly reduced during the 1980-1985 period (See Table 5).

Table 5

Average Annual Growth Rates and Increases in Urban Population for the 1965 to 1985 Period\*

Period	Average Annual Growth Rate (Percent)	Average Annual Increases (Number of Inhabitants)	Average Annual Increase in Urban Population (Percent)
1965-1975	3.7	280,000	0.95
1975-1980	5.0	500,000	1.80
1980-1985	2.0	240,000	0.46

\*) Data calculated on basis of information from the Program-Directive for Romania's National Socio-Economic Development for the Period 1981-1985, Political Publishing House, 1979, p 25.

Growth will be provided by the natural increase in the population of the cities and by redesignation of 140 rural localities as urban. The already well substantiated fact that the growth rate of the urban population will decrease is of net positive importance. International experience has shown that the increase in their urban population above a certain level--approximately 50 percent--is even smaller. According to UN information, the proportion of world urban population was 28.8 percent in 1950, 39.3 percent in 1975 and will reach 49.4 percent in the year 2000.<sup>4</sup>

The proportion in the developed countries was 69.8 percent in 1975. It is estimated that it will reach 81.8 percent in the year 2000. In the developing countries it was 27.2 percent in 1975 and will be 40.4 percent in the year 2000. As a developing country, Romania is in the situation of having a high proportion of urban population. At a level of 54.5 percent in 1985 it will possess a degree of urbanization characteristic of countries with an average level of development.

With this opportunity let us consider the present situation and future prospects of the village. The 2,705 communes [townships] of which 147 are suburban encompass a total of 13,124 villages. These communes are also the object of major transformations within the framework of the systemization of the village. They will be merged, reorganized and developed. Some of them will be prepared to become urban localities. All will undergo a vigorous process of modernization and will acquire the characteristics of urban civilization while still preserving the specific nature of the rural habitat. The balanced development of the nation requires the maintenance and development of the village even if, within reasonable limits, of course, the size of the rural population should decrease. The socio-professional makeup of the population will continue to change. One argument in this direction is the fact that in 1980 with a rural population of 47.8 percent, the population active in agriculture will represent 29.1 percent of the working population of the country. Furthermore, the village will acquire other important roles

with respect to the ecological balance and the utilization of free time by the entire population. The adoption of the most valuable elements of the village cultural model, their transfer to the urban population and the cultivation by all means available, including in architecture, of that which is referred to as the "national identity" are the concerns of major significance for the upcoming period.

Another orientation in the strategy of economic development and urbanization is the increase in the social and economic role of the small and mid-size cities. The result will be that the major cities, including Bucharest, will remain at their approximate present population levels. This measure is of particular significance. The recommendation has been made in numerous UN documents including the World Plan for Action in the Area of Population that all countries should devise specific strategies and effect the development of the small and mid-size cities in order to decongest the great urban agglomerations and provide for a better planned distribution of population within their territories. Of course, major efforts, particularly economic ones, are necessary for the achievement of this objective. It is not difficult to imagine that such measures would limit internal migration and simultaneously prevent excessive urban concentration.

Another measure should be further discussed that involves the more rational territorial distribution of urbanization. At the end of the 1981-1985 Five-Year Plan at least nine urban centers will exist in every district. The extent of urbanization will be reduced through better territorial distribution, thereby contributing to the process of social, economic and demographic equalization of the entire country. Important steps will be taken in the upcoming five year plan with regard to the alleviation of the differences between village and city, physical and intellectual labor and agricultural and industrial work. Precisely these efforts will result in improvement of the quality of life.

The guidelines and objectives set by the party's 12th Congress in the area of urbanization and territorial systemization bear the mark of the struggle for improvement of quality in general. Their fulfillment will directly result in social and demographic equalization between the urban and rural living environments and the country's various zones and localities, in a more rational and demographic structure of the urban and rural populations, in the alleviation of negative trends and, in the final analysis, in an important step on the road to improving the quality of life. This is and will remain a fundamental objective.

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#### FOOTNOTES

1. Statistical Yearbook of the RSR, 1979, p 434.
2. The Statistical Yearbook of the RSR, 1979, pp 612.

3. See V. Trebici, Dinamization of the Development--Urbanization Correlation I and II, REVISTA ECONOMICA, No 1 and 2, 1979.
4. United Nations Organization, Concise Report on the World Population Situation in 1977. New Beginnings and Uncertain Ends (Population Studies, No 63), New York, 1979.

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**[Law on Basic Property Law Relations]**

**[Text] Chapter 1**

**Basic Principles**

**Article 1**

**Citizens, associations of citizens and other civil legal persons are entitled to own property within the limits and under the conditions prescribed by law.**

**Article 2**

**Title may be held both to personal property and to real property.**

**Title may not be held to property which can only be owned as public property.**

**Article 3**

**The property owner is entitled to possess, use and dispose of his property within the limits provided for by law.**

**All persons are obliged to refrain from infringing upon the property rights of others.**

**Article 4**

**A property owner realizes the right of property ownership in conformity with the nature and designated use of the property owned and in conformity with the public interest as defined by law.**

**The exercise of the right of property ownership in a manner which contradicts the purpose for which such right was established or conferred by law or in**

a manner which violates the ethical principles of a socialist self-management society is prohibited.

#### Article 5

An owner of real property is obliged in the course of using his real property to refrain from all actions and to forestall actions originating on his property by means of which the use of other real property is infringed upon (the dissemination of smoke, unpleasant odors, heat, soot, vibrations and noise, the drainage of waste water, and so on) in a manner which exceeds standards which are customary with respect to the nature and designated use of his real property and local conditions or by means of which significant damage is inflicted.

In the absence of special legal authorization the utilization of special equipment or devices which cause any of the disturbances mentioned in paragraph 1 of this article is prohibited.

#### Article 6

Under conditions provided for by law easements, encumbrances and liens may be established for any object in relation to which the right of property ownership exists.

The exercise of the rights specified in paragraph 1 of this article in a manner which contradicts the purpose for which such rights were established or conferred by law or which violate the ethical principles of a socialist self-management society is prohibited.

#### Article 7

The acquisition, protection and suspension of ownership, easement, encumbrance and lien rights are governed by law.

#### Article 8

The right of property ownership may be rescinded or restricted solely under conditions provided for by law and in conformity with the provisions of the Constitution.

#### Chapter 2

##### The Right of Property Ownership

###### 1. Property Owners and Property

#### Article 9

A citizen may hold title to property which is used to satisfy his personal needs and interests and also the personal needs and interests of his family members.

Acting within the limits provided for by law, a citizen may hold title to a single-family residential building, a recreational or convalescent building or an apartment dwelling in order to meet his personal and family needs.

A citizen is permitted to use the property mentioned in paragraphs 1 and 2 of this article to earn income solely in a manner and under conditions provided for by law.

#### Article 10

Acting within the limits provided for by law, a citizen may hold title to agricultural and other plots of land, forests and wooded lots, commercial buildings and commercial premises, and working assets which are used for the independent pursuit of income-producing activities by means of personal labor.

#### Article 11

An association of citizens or any other civil legal person may hold title to personal property which is used in furtherance of the realization of the common interests of its members and the goals for which it was founded.

The property owners mentioned in paragraph 1 of this article are entitled to own commercial buildings and premises which are used in furtherance of the realization of the common interests of their members and the purposes for which they were founded and also residential buildings and apartments which are a separate part of residential buildings that are used to meet the housing needs of the workers which are employed by these associations or civil legal persons.

Acting within the limits provided for by law, the property owners mentioned in paragraph 1 of this article are entitled to own plots of land which are used to realize the common interests of their members and to realize the goals for which they were founded.

#### Article 12

When a building in relation to which the right of property ownership exists is built, in conformity with the law, on publicly owned land, the building owner is entitled to use the land on which the building is constructed and the land which is set aside for normal use for as long as the building continues to stand.

The land use rights mentioned in paragraph 1 of this article may be transferred solely in connection with the transfer of ownership rights to the building itself.

## Article 13

Several persons are entitled to own property which is indivisible when the share of each person is defined proportionately in relation to the whole (the ideal share).

If the coownership shares are not defined, it is assumed that they are equal.

## Article 14

A coowner is entitled to possess and use property together with other coowners in direct proportion to his share so long as he does not infringe upon the rights of other coowners.

A coowner may dispose of his property share without the consent of the other coowners.

In the event that a coownership share is sold, the other coowners have the right of first bid for the purchase of said share only insofar as this is provided for by law.

## Article 15

Coowners are entitled to manage their property jointly.

In order to carry out regular property management functions it is necessary to obtain the consent of the coowners whose shares jointly amount to more than one half of the property's total value.

If in situations as specified in paragraph 2 of this article said consent is not obtained and if the performance of said functions is deemed to be essential for the regular maintenance of the property in question, the case will be decided in a court of law.

The consent of all coowners is required in order to carry out functions which exceed the scope of regular property management functions (the quit claim deeding of the property in its entirety, the changing of the property's designated use, the leasing of the property in its entirety, the mortgaging of the property in its entirety, the granting of real easements, the undertaking of major repairs, and so on).

Coowners may entrust property management duties to one or several coowners or to a third party.

The costs of using, managing and maintaining a property and other encumbrances related to the property as a whole are borne by the coowners in proportion to the size of their shares.

## Article 16

A coowner has the right at any time to request the subdivision of property, except at times when such a subdivision would be detrimental to other coowners, unless otherwise provided for by law.

The right specified in paragraph 1 of this article is enjoyed in perpetuity.

Any contract through which a coowner renounces in perpetuity his right to a subdivision of property is null and void.

Coowners jointly agree upon the way in which property is to be subdivided, and in the event that they cannot reach such an agreement, this question will be decided by a court of law.

The court will rule that such a division is to be effected by the sale of the property in question if the physical subdivision of the property is impossible or if it is possible only in conjunction with a considerable diminution in the value of the property in question.

The other coowners are liable to the coowner, to whom the property or a portion thereof has been awarded as a result of the subdivision process, for legal and physical defects of the property within the limits of their coowner shares.

The entitlement mentioned in paragraph 6 of this article becomes void after 3 years from the date of the subdivision of the property.

## Article 17

In cases and under conditions provided for by law the right of coownership also applies to an unsubdivided property of which one share lies in the public domain and to a share which is privately owned.

## Article 18

The right of joint ownership may be recognized in cases and under conditions provided for by law.

Joint ownership is held to be the ownership of an unsubdivided property by several persons when their shares in this property are definable but not specified in advance.

## Article 19

In cases and under conditions provided for by law title may also be held to an apartment or to commercial premises which form a part of a larger building.

## 2. The Acquisition of Property Rights

### Article 20

Property rights are acquired by an act of law, on the basis of a legal transaction and by inheritance.

Property rights are also acquired by the ruling of a state organ in a manner and under conditions provided for by law.

### Article 21

Property rights are acquired in law only through the creation of new property, through the combination or amalgamation of property, through the construction of property on someone else's land, through the sharing of crops, through settlement, through the acquisition of property from a nonowner, through tenancy and under other circumstances provided for by law.

### Article 22

A person who creates new property using his own materials and by his own labor acquires title to this property.

Title to new property is granted to an owner whose own materials were used by another person, on the basis of a lawful labor contract, to create this property.

If someone uses someone else's materials to create new property through his own labor, he acquires title to this property if he acts in good faith and if the value of his labor exceeds the value of the materials, and if these values are equal, the property is to be held in coownership.

### Article 23

When properties which belong to various owners are combined or amalgamated in such a way so that they can no longer be divided without causing substantial losses or without incurring excessive costs, the new property is to be held in coownership for the benefit of the previous individual owners whose shares will correspond to the values which the individual properties had at the time they were combined or amalgamated.

If one of the owners did not act in good faith, an owner who did act in good faith can demand, within 1 year after the date on which properties were combined or amalgamated, that the title to the entire property should be awarded to him or that the title to the entire property should be awarded to the owner who did not act in good faith provided that the latter compensates the former for the value of his property.

If the value of one of two combined or amalgamated properties is negligible in relation to the other, the owner of the latter will gain title to the new property with the provision that he is obligated to compensate the person who thereby forfeited his property rights for the value of his property.

#### Article 24

A person who is entitled to own property and who erects a building or other structure (structural facility) on land to which another person holds title (the builder) also acquires title to the land on which the structure is erected and to the land which is essential for the regular use of this structure as long as the former did not know and could not have known that he was building on someone else's land and as long as the landowner was aware of this construction activity and did not forthwith raise any objections.

In the event that a situation arises as described in paragraph 1 of this article the landowner has the right, provided that he takes action within 3 years after the date on which he was informed that the construction work had been completed or, at the latest, within 10 years after the date on which the construction work was completed, to sue for compensation from the builder for the value of the land in an amount equal to the current market price that prevails at the time when a final ruling is made by a court of law.

#### Article 25

If the builder was aware that he was building on someone else's land or if he was not so aware and the landowner did not promptly object to this construction activity, the landowner can sue for title to the structure that was built or to enjoin the builder to demolish the structure and restore the land to its original condition or to enjoin the builder to pay him the current market price for the value of the land.

By way of exception to the provision stated in paragraph 1 of this article, a court of law can rule that a structure which has already been erected should not be demolished if the demolition of this structure is deemed not to be in the public interest in view of the circumstances of the case and especially in view of the value of the structure, the financial status of the landowner and the builder, and their behavior during the construction process.

In the situations described in paragraph 1 of this article the landowner is also entitled to be compensated for damages.

If a landowner sues to receive title to a structure which has been erected on his land, he is obliged to compensate the builder for the value of the structure in an amount equal the average cost of building such a structure in the locality in which it is situated at the time when a final ruling is made by a court of law.

The landowner can choose from among the optional courses of action specified in paragraph 1 of this article by no later than 3 years after the date on which the construction of the structure in question is completed. After this period has elapsed the landowner can sue to receive compensation equal to the current market price of the land.

#### Article 26

If the builder has acted in good faith and if the landowner was unaware of the construction work and in the event that the structure which was erected is worth considerably more than the land, the structure together with the land becomes the property of the builder, and the builder is liable to the landowner for payment of compensation at the land's current market price.

If the value of the land is much greater than the value of the structure, the court of law will, at the landowner's petition, award the structure to him and require him to compensate the builder for the value of the structure in an amount equal to the average cost of building such a structure in the locality where it was erected. The landowner may file this petition within a period of up to 3 years after the date on which the construction of the structure was completed.

If the builder acted in good faith and if the landowner was unaware of the construction work and in the event that the value of the structure and the value of the land are roughly equal, the court will award the structure or the structure and the land to the landowner or to the builder, taking into account their particular needs and especially their respective housing situations.

The landowner or the builder are entitled to receive compensation for the value of the land or the value of the structure in conformity with the provisions of paragraph 1 of this article.

#### Article 27

Legal title to the crops produced by a given property belongs to the property owner.

The possessors, crop sharers and tenants of a property which produces crops who act in good faith gain title to the crops produced as soon as they are divided. The crops specified in paragraph 2 of this article, until such time as they are divided, are an integral part of the property in question and belong to the property owner.

#### Article 28

A rightful and lawful possessor of personal property to which another person holds legal title gains title to this property by settlement after the lapse of 3 years.

The rightful and lawful possessor of real property to which another person holds legal title gains title to this property by settlement after the lapse of 10 years.

The rightful possessor of personal property to which another person holds legal title gains title to this property by settlement after the lapse of 10 years.

The rightful possessor of real property to which another person holds legal title gains title to this property by settlement after the lapse of 20 years.

An heir becomes the rightful owner of an estate as soon as the estate has been released from probate even in the event that the author of the will was not a rightful owner of his estate, the heir to the estate did not or could not have known this, and the period of time pertaining to ownership by settlement begins to elapse as soon as the estate has been released from probate.

#### Article 29

Title to property which is publicly owned cannot be gained by right of settlement.

#### Article 30

The period of time required to acquire property by right of settlement begins to elapse as of the date on which the property user comes into possession of the property and it expires as of the last day of the period required to acquire property by right of settlement.

The period of time required to acquire property by right of settlement also includes the time during which the predecessors of the present possessor held the property in question as rightful and lawful possessors or as rightful possessors.

The suspension or abeyance of the period of time required for the acquisition of property by right of settlement are governed in an appropriate manner by the regulations on the suspension or abeyance of the statute of limitations.

#### Article 31

A person acting in good faith gains title to personal property which said person has acquired with payment of compensation from a nonowner who puts such property up for sale in the course of pursuing his profession, from a nonowner to whom an owner has conveyed property on the basis of a legal transaction which is not grounds for the acquisition of property rights, and at public auctions.

The former owner may demand that the buyer who acts in good faith should compensate him for the value of the property in question at its current market price if this property possesses special significance for him.

The claim specified in paragraph 2 of this article cannot be made after the expiration of a period of 1 year after the date on which title to the property in question was acquired.

#### Article 32

Title to personal property which has been abandoned by its owner is acquired by the person who takes possession of said property with the intention of appropriating (occupying) it for his personal use unless otherwise provided for by law.

Title to real property cannot be acquired by right of occupation.

#### Article 33

On the basis of a legal transaction title to real property is acquired by registration in public records or in some other appropriate way as provided for by law.

#### Article 34

On the basis of a legal transaction title to personal property is acquired through the transfer of said property to the possession of the receiver.

Real property is also deemed to be transferrable through the transfer of documents on the basis of which the receiver is permitted to dispose of said property as well as through the consignment of some portion of said property, its subdivision, or other designation which is tantamount to the transfer of the property in question.

When personal property is in the possession of the receiver on some legal grounds, the receiver acquires title to it as soon as a legal transaction has been completed with the property owner on the basis of which the receiver acquires title to the property in question.

If for some other reason the receiver of title to personal property allows this property to remain in the possession of the transferer, the recipient will acquire title to this property as soon as legal transactions are completed with the property owner on the basis of which the recipient acquires title to the property in question.

Title to personal property which is in the possession of a third party passes to the recipient upon the conclusion of legal transactions by means of which the transferer cedes to the recipient the right to demand the return of the property in question. In his relations with the new owner the third party has the right to assert the same claims which he had in his relations with the former owner.

The transfer of personal property is deemed to be an accomplished fact when it follows from the specific circumstances of a given case that the property in question has in fact been transferred.

#### Article 35

Whenever several parties have concluded separate legal transactions for the purpose of acquiring title to the same personal property which constitutes a discrete entity, title to this property is acquired by the party to whom the property is first transferred.

#### Article 36

Title to property is acquired through inheritance as soon as the estate of the deceased is released from probate unless otherwise provided for by law.

#### 3. The Protection of Property Rights

##### Article 37

A property owner may file suit to demand that a person using his property restore to him specifically named pieces of property.

The property owner must prove that he holds title to the property for the restoration of which he is suing and that this property is in fact in the possession of the person he is suing.

The right to file suits as specified in paragraph 1 of this article is not subject to any statute of limitations.

##### Article 38

A possessor of property acting in good faith transfers property to the property owner together with all crops that have not yet been harvested.

A possessor of property acting in good faith is not obliged to pay compensation for his use of property nor is he liable for the deterioration or ruination of the property given over to his use that occurred during the time in which he used the property in good faith.

A possessor of property who has acted in good faith is entitled to compensation for the necessary costs of maintaining the property given over to his use.

A possessor of property who has acted in good faith may sue for compensation for investment costs to the extent that these expenditures have enhanced the value of the property in question.

The property owner is obliged to compensate a property possessor who has acted in good faith for the operating and investment costs specified in paragraphs 3 and 4 to the extent that these costs are not covered by the benefits which the former derived from the use of the property in question.

A possessor of property who has acted in good faith is entitled to compensation for the costs which he incurred for the purpose of meeting his own needs or for the purpose of improving the property given over to his use only insofar as these expenditures have served to enhance the value of the property in question. If the results of the expenditures which have been made for the purpose of meeting the property possessor's personal needs or for the purpose of improving the property can be separated from the property in question without inflicting any damage, a possessor of property who has acted in good faith has the right to separate this added value and retain it for his own use. A possessor of property who has acted in good faith is entitled to retain property given over to his use until such time as he receives compensation in an amount equal to the operating and investment costs which he incurred in connection with the upkeep of the property in question.

The right to sue for compensation for operating and investment costs becomes void after 3 years after the date on which property is transferred.

#### Article 39

A possessor of property who has not acted in good faith is obliged to relinquish all crops to the property owner.

A possessor of property who has not acted in good faith is obliged to pay compensation for the value of harvested crops which he has used, sold or destroyed as well as for the value of crops which he neglected to harvest.

A possessor of property who has not acted in good faith is obliged to pay compensation for damages which occur due to the deterioration or ruination of the property given over to his use except when this damage would have occurred anyway had the property in question been in the possession of the property owner.

A possessor of property who has not acted in good faith may sue to receive compensation for operating costs which the owner would have had to pay had the property been in his possession.

A possessor of property who has not acted in good faith is entitled to compensation for investment costs only if these outlays are beneficial to the owner only.

A possessor of property who has not acted in good faith is not entitled to compensation for costs which he incurred for the purpose of meeting his own needs or for the purpose of improving the property given over to his

use, but he can take with him property which he has built for his own use or for the improvement of the property which he occupied as long as by so doing he does not inflict damage on the principal property.

A possessor of property ceases to be regarded as having acted in good faith as soon as he has been served with a complaint or as soon as the property owner is able to prove that a property possessor has ceased to act in good faith even before he has been served with a complaint.

#### Article 40

The right of the property owner to sue a property possessor who has acted in good faith to transfer harvested crops and to pay compensation for crops which he used, sold, neglected to harvest or destroyed becomes void 3 years after the date on which the property in question was transferred.

The rights of a property user who has not acted in good faith to file suit for compensation for costs incurred becomes void 3 years after the date on which the property in question is transferred.

#### Article 41

A person who has acquired a specifically named piece of property on legal grounds and in a lawful manner and did not know nor could have known that he is in fact not the legal owner of the property in question (the presumptive owner) is entitled to demand that this property should be restored to him by a property possessor who has acted in good faith and whose possession of this property is legally groundless or subject to legal dispute.

When two persons are deemed to be the presumptive owners of the same property, the person who acquired the property in question at some cost has stronger legal grounds for claiming title to it than the person who acquired it at no cost. If the legal grounds of the claims of both persons are equally valid, priority is given to the person who is in possession of the property.

The right to file suit on the basis of the provisions of paragraph 1 of this article is not subject to any statute of limitations.

#### Article 42

If a third party acts in some other way without good cause to disturb a property owner or presumptive property owner, but not by the removal of property, the property owner or presumptive property owner may file a complaint demanding that the party in question should desist from causing this disturbance.

When damage is caused by the disturbance mentioned in paragraph 1 of this article, the property owner is entitled to claim compensation for damages in accordance with the general rules governing compensation for damages.

The right to file a complaint as specified in paragraph 1 of this article is not subject to any statute of limitations.

#### Article 43

A co-owner or joint owner is entitled to sue for the protection of his title to a piece of property in its entirety, and a co-owner is entitled to sue for the protection of his title to the portion of a property which he owns.

#### 4. The Suspension of Property Rights

##### Article 44

Property rights are suspended when property passes into the public domain.

##### Article 45

Title to property held by an individual is suspended when another individual acquires title to the property in question.

##### Article 46

Property rights are suspended when property is abandoned.

A property is deemed to have been abandoned when its owner declares unequivocally that he no longer wishes to use the property in question.

Abandoned real property passes into the public domain as soon as it is abandoned.

##### Article 47

Property rights are suspended upon the destruction of the property in question.

The property owner retains title to the remnants of the destroyed property.

##### Article 48

Property rights are also suspended in other cases provided for by law.

#### Chapter 3

#### Easement Rights

##### Article 49

A real easement refers to the right of the owner of a given piece of real property (the dominant tenement) to perform certain actions designed to

serve the needs of this real property on the real property of another owner (the servient) or to demand that the owner of the servient tenement refrain from performing certain actions which he would otherwise be entitled to perform on his own property.

A real easement may be granted for a specified period of time or for a specific season of the year.

If the dominant or servient tenement is a public resource embodied in a public legal person, the workers and other working people who make up this public legal person possess the same rights and duties which are possessed by the bearers of the rights and duties which derive from real easements unless otherwise provided for by law or contract.

#### Article 50

A real easement is exercised in a manner which is least detrimental to the servient tenement.

If the exercise of a real easement calls for the use of some equipment or for the undertaking of certain actions, the costs of maintaining said equipment and undertaking said actions is borne by the owner of the dominant tenement.

If the equipment or action also serves the interests of the owner of the servient tenement, the costs of maintaining said equipment and the costs of undertaking said actions are borne, in proportion to the benefits which are derived, by the owner of the dominant tenement and the owner of the servient tenement.

#### Article 51

A real easement is established by legal transaction, by the ruling of a state organ and by the right of settlement.

#### Article 52

On the basis of a legal transaction a real easement is acquired by registration in public records or in another appropriate manner provided for by law.

#### Article 53

A real easement is established by the ruling of a court of law on the division of property or by the ruling of another state organ when the owner of a dominant tenement is unable to use said tenement in its entirety or partially without appropriate access to the use of a servient tenement and also in other cases provided for by law.

The easement specified in paragraph 1 of this article is acquired on the date when the appropriate ruling goes into effect unless otherwise provided for by law.

At the request of the owner of a servient tenement the state organ with jurisdiction will also determine the due amount of compensation which the owner of the dominant tenement is required to pay to the owner of the servient tenement.

#### Article 54

A real easement is acquired by settlement when the owner of a dominant tenement has in fact enjoyed easement rights for a period of 20 years and the owner of the servient tenement has not objected to this.

A real easement cannot be acquired by settlement if it has been exercised by abusing the trust of the owner or possessor of the servient tenement, by force or by deceit or if the easement is revoked.

#### Article 55

A real easement on real property which is publicly owned by a public legal person cannot be acquired by settlement.

#### Article 56

The owner of a dominant tenement can file a suit to demand the certification of the existence of a real easement in relation to the owner of a servient tenement.

The suit specified in paragraph 1 of this article is to be governed in an appropriate manner by the provisions of article 37, paragraph 2 of this law.

#### Article 57

If the owner of a dominant tenement acts without good cause to hinder or interfere with the exercise of a real easement, he may be sued to desist from this hindrance or interference.

#### Article 58

A real easement is suspended if the owner of a servient tenement objects to the exercise of such an easement and if the owner of the dominant tenement has not exercised his right for 3 consecutive years.

The owner of a servient tenement may demand the suspension of real easement rights when the exercise of these rights is no longer necessary for the use of the dominant tenement or when some other reason for which these rights were established no longer applies.

A real easement is suspended if it is not exercised during the time necessary for its acquisition by settlement, when the same person becomes the owner of the dominant and servient tenements or in the event of the destruction of the dominant or servient tenements.

#### Article 59

If a dominant tenement is subdivided, a real easement remains in effect for the benefit of all of its subdivisions.

The owner of a servient tenement may demand that a real easement of an owner of a given subdivision of a divided dominant tenement be suspended if the real easement is not used to meet the needs of the subdivision in question.

If a servient tenement is subdivided, a real easement remains in effect only in those subdivisions on which it is exercised.

#### Article 60

The right of crop-sharing, the right of use, the right of residence and the right of real encumbrance are regulated by law.

### Chapter 4

#### Rights of Lien

##### Article 61

Rights of lien may exist against personal property, real property and rights.

Rights of lien come into force on the basis of a legal transaction, rulings of courts of law, and legislative acts.

##### Article 62

Rights of lien against personal property and rights of lien against rights are governed by provisions on liens contained in regulations which govern debts.

##### Article 63

In order to secure a given claim real property may be encumbered by a right of lien in behalf of a creditor (mortgagee) who is authorized, acting in a manner provided for by law, to seek settlement of his claim from the value of such real property in advance of any creditor who does not hold a mortgage against such property and also in advance of any creditor who acquired a mortgage against such property after him regardless of any change in the identity of the owner of the encumbered real property.

A mortgage applies to an entire piece of real property, to its crops until they are separated from the property in question, and to its other integral parts and appurtenances.

In order to secure a given claim a mortgage may be recorded on several pieces of real property (a common mortgage).

An indentured real property secures in its entirety the claim of a creditor to the complete settlement of his claim regardless of subsequent subdivisions of real property (mortgage indivisibility).

#### Article 64

On the basis of a legal transaction or the ruling of a court of law a mortgage is acquired by entry in public records or by other appropriate means provided for by law.

On the basis of a legislative act a mortgage is acquired as soon as all of the conditions provided for by law for its recording have been met.

#### Article 65

Whenever the same piece of real property is encumbered by several mortgages the priority of the mortgages is determined according to the date of their recording unless otherwise provided for by law.

#### Article 66

A mortgage may be conveyed to another party only in conjunction with the conveyance of the claim which is secured by such a mortgage.

A mortgagee may record a mortgage on an existing mortgage in behalf of a third party without the consent of the mortgagor.

#### Article 67

If a mortgagor takes any action which diminishes the value of a real property encumbered by a mortgage or in any other way causes a deterioration in its condition, the mortgagee may seek a court order demanding that the mortgagor should desist from such actions, and if the mortgagor fails to do so, the mortgagee may sue for mandatory payment of claims secured by a mortgage even before it falls due.

#### Article 68

The voiding of a mortgage may be applied for:

- when the mortgagor pays the claim secured by the mortgage;
- when the mortgagee renounces a mortgage in the form of a written declaration submitted before a competent state organ which keeps the public records in which the mortgage is entered;

-- when real property encumbered by a mortgage has passed into the public domain;

-- when the same person has become the holder of title and the holder of the mortgage to the same real property, and

-- when real property encumbered by a mortgage is destroyed insofar as it will not be restored to its original condition.

Whenever real property encumbered by a mortgage has passed into the public domain, the recipient is obliged to settle all claims secured by a mortgage on such real property in an amount equal to its market price at the time of conveyance into the public domain unless otherwise provided for by law in special cases.

Whenever the owner of real property encumbered by a mortgage which has passed into the public domain is given other real property as compensation, the mortgage is transferred to this real property.

#### Article 69

The provision of a mortgage contract by means of which a mortgagee reserves for himself the right, in the event that a debt is not repaid, to settle his claim by acquiring title to an indentured real property, by harvesting the crops which such real property produces or by exploiting such real property in some other way is null and void.

#### Chapter 5

##### Possession

#### Article 70

The possession of property is enjoyed by any person who directly exercises virtual control over such property (direct possession).

The possession of property is also enjoyed by a person who exercises virtual control over such property through other persons to whom the property has been given into direct possession on the basis of a tenant farming agreement, a residence use agreement, lease, trusteeship, service contract or other legal transaction (indirect possession).

The possession of real easement rights is enjoyed by a person who in fact has the use of the real property of another person to an extent which corresponds to the substantive provisions of such an easement.

The possession of property or rights may be enjoyed by several persons (copossession).

## Article 71

A person who under the terms of a labor or other similar contractual relationship or as a member of a household exercises virtual control over property in behalf of another person and who is obliged to act according to the instructions of such another person does not have possession.

## Article 72

Possession is lawful if it is based on valid legal grounds which are required for the acquisition of property rights and if it is not obtained through the use of force, deception, or the abuse of trust.

Possession is enjoyed in good faith if the possessor does not or could not know that the property which he possesses is not his own.

It is presumed that possession is enjoyed in good faith.

## Article 73

An heir becomes the possessor upon the death of a testator regardless of when it was that he came to exercise virtual control over the property in question.

## Article 74

Possession is forfeited when the possessor no longer exercises virtual control over the property in question.

Possession is not forfeited if the possessor is temporarily prevented from exercising virtual control over the property in question against his own will.

## Article 75

Everyone who enjoys possession of property and rights (article 70) is entitled to protection against the disturbance or deprivation of his possessions (trespass).

## Article 76

A possessor is entitled to self-defense against anyone who wrongfully encroaches upon his possessions or who deprives him of them provided that the danger posed is clear and present, that self-defense is necessary, and that the manner in which it is exercised is commensurate with the conditions under which the danger exists.

## Article 77

Judicial protection against the encroachment upon or deprivation of possessory rights may be applied for within 30 days after the date on which the complainant became aware of the trespass and the trespasser and at the latest within 1 year after the date on which the trespass took place (a trespass dispute).

## Article 78

A court of law affords protection which takes cognizance of the most recent condition of the property in question and the damage which took place, and in this connection possessory rights, the legal basis of possessory rights and the good faith of the possessor are deemed to be irrelevant.

A possessor who came into possession of property through the use of force, by stealth or through the abuse of trust is also entitled to such protection, except against the person from whom he acquired such property in this manner as long as the time limits specified in article 77 of this law and dating from the time when the trespass took place have not yet elapsed.

## Article 79

Rulings on claims for protection against trespass are handed down in order to enjoin further encroachments on possessory rights under the penalty of a monetary fine or an order to restore divested possessions, in addition to other measures deemed to be necessary for protection against further trespass.

## Article 80

A copossessor enjoys the protection afforded under the terms of the provision of article 75 of this law in relation to third parties, as well as in relation to other copossessors if one of them hinders another in the customary exercise of his virtual control over the property which is in his possession.

## Article 81

The judicial protection of possessions held on the basis of possessory rights may be applied for regardless of an outstanding dispute which has arisen due to trespass (article 77).

## Chapter 6

### Rights of Foreign Nationals

## Article 82

Foreign natural persons may hold title to personal property in the same way as may citizens of the Socialist Federal Republic of Yugoslavia unless otherwise provided for by federal law.

On the territory of the Socialist Federal Republic of Yugoslavia foreign natural persons may, under conditions of reciprocity, hold title to land and buildings which they have acquired through inheritance in the same way as may citizens of the Socialist Federal Republic of Yugoslavia unless otherwise provided for by international agreement.

#### Article 83

Private and publicly owned buildings to be used for official purposes and also privately owned building sites to be used for the construction of such buildings may be sold to foreign states to meet the needs of their diplomatic and consular missions and to the organizations and special agencies of the United Nations with the prior consent of the federal administrative organ responsible for the judiciary.

#### Article 84

Only single-occupancy residential buildings may be leased on a long-term basis to foreign natural persons, in conformity with urban plans and rulings, in order to provide for short-term or long-term rest and convalescence needs and in order to meet their other personal needs and those of their family members.

Only organizations of associated labor and sociopolitical communities may lease residential buildings on a long-term basis pursuant to paragraph 1 of this article.

A long-term lease may be entered into for a period of no less than 5 years and no more than 30 years.

After the expiration of the agreed upon period of the lease it can be extended, but the total duration of the lease under the terms of the previous contract and the new contract can run for no longer than 30 years.

At the request of the lessee a long-term lease will also be entered into public records or will be recorded in some other appropriate manner provided for by law.

A long-term lease which is entered into public records will also remain legally valid in relation to subsequent occupants of the residential building in question.

#### Article 85

A residential building is leased to a foreign natural person on a long-term basis by means of a written contract after having obtained the prior consent of the appropriate official organ designated by republic or provincial law.

A decision on whether to give or withhold its consent to a lease is made by a competent official organ on the basis of its independent assessment of the terms of the lease and without having to cite any reasons in support of its decision, and this decision is final in the eyes of administrative law.

A foreign natural person may sublet a building which is held under a long-term lease to domestic hotel and restaurant and tourist organizations during the time when it is not in use, under circumstances and conditions provided for by law.

## Chapter 7

### Governing Law in the Event of Conflicts Between Republic and Provincial Laws

#### Article 86

With respect to the form of the legal transaction which applies to property right relations on real property the law of the republic or autonomous province on whose territory the real property is located is declared to be the governing law.

#### Article 87

With respect to the rights and duties which arise out of property relations pertaining to real property the law of the republic or autonomous province on whose territory the real property is located is declared to be the governing law during the litigation of a dispute.

With respect to rights and duties arising out of property right relations pertaining to personal property which is listed in public records the law of the republic or autonomous province on whose territory such records are kept is declared to be the governing law as of the moment when said personal property is recorded.

#### Article 88

If a citizen owns real property on the territories of several republics or autonomous provinces, the law of the republic or autonomous province which is most favorable to him is declared to be the governing law with respect to determining the maximum amount of real property to which he may hold title with the provision that on the territory of a given republic or autonomous province such a citizen may not own more than the maximum amount of private real property prescribed for the republic or autonomous province in question.

The provision contained in paragraph 1 of this article also applies to associations of citizens and to other civil legal persons.

## Chapter 8

### Concluding Provisions

#### Article 89

The provisions of articles 40b, 40c, 40d and article 41 of the Law on the Sale of Land and Buildings (SLUZBENI LIST SFRJ, no 43/65, 57, 65, 17/67 and 11/74) and the provisions of article 439, article 441, paragraphs 2 and 3, and article 443, paragraph 1 of the Law on Legal Proceedings (SLUZBENI LIST SFRJ, no 4/77) will be repealed as of the date on which this law goes into effect.

#### Article 90

This law goes into effect on 1 October 1980.

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